BY ORDER OF THE COMMANDER
SPANGDAHLEM AIR BASE (USAFE)

SPANGDAHLEM INSTRUCTION 32-7003

10 MARCH 2004

Civil Engineering

WATER QUALITY MANAGEMENT - COMBINED STORM WATER POLLUTION/ SPILL AND BATCH DISCHARGE SLUG PREVENTION PLAN

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFPD 32-70, *Environmental Quality*. It establishes procedures and delineates responsibilities for Water Quality Compliance Program of Spangdahlem Air Base (SAB), Bitburg Annex, and all off-base sites assigned to the 52d Fighter Wing (52 FW) or supported by the 52 FW. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule.

1. General.

This instruction sets up a framework for all personnel to use in complying with water quality requirements. The 52d Civil Engineer Squadron (52 CES) Environmental Flight (CEV) will provide professional advice and technical support to help in complying with policies and regulatory requirements. The purpose of this instruction is to provide guidance on the procedures and responsibilities that prevent the discharge of water endangering substances and high concentrations of pollutants caused by unintentional release to the storm drainage, wastewater treatment plant (WWTP) and Host Nation (HN) waters associated with SAB, Bitburg Annex and all off-base sites assigned to or supported by the 52 FW. This instruction fulfills the requirements of AFI 32-7041, *Water Quality Compliance* and Final Governing Standards-Germany (FGS-G) Chapter 4, *Wastewater* (C4.3.4). This document has no effect or influence on the *52 FW Hazardous Material* (HAZMAT) *Emergency Planning and Response Plan*.

2. Description of Discharge Practices, Including Non-Routine Batch Discharges.

Spangdahlem Air Base has 16 drainage areas and discharge points. Storm water is discharged directly off base into community streams from areas where little or no contamination is expected. Storm water is diverted to catch basins from areas where pollution is expected, treated through oil/water separators (OWS) and either discharged to the community streams via retention ponds or diverted to the WWTP.

Non-routine batch discharges are examined to determine the most effective route of discharge that is protective of the environment and complies with all laws, regulations and instructions.

3. Description of Regulatory Requirements and Environmental Flight Responsibilities.

Each of the discharge points are regulated by HN permits. HN permits include mandatory controls, monitoring and sampling of each discharge point. An annual sampling summary, deicing chemical usage and wastewater self-inspection report must be submitted by CEV to the local higher water authority Struktur- und Genehmigungsdirektion Nord in Trier. CEV, through a contract with Landesbetrieb Liegenschaft- und Baubetreuung, Niederlassung Trier, is responsible for monitoring activities at SAB. A certified analytical laboratory will perform chemical analyses and analytical data reporting. Visual examination of runoff quality will be made during daylight hours quarterly at random sites during varying outfall occurrences. This plan will be updated annually to ensure the program is actively and efficiently implemented to achieve and maintain regulatory compliance, reduce HAZMAT usage and waste generation, conserve resources and prevent pollution. SAB is subject to Air Force assessments under the Environmental Compliance Assessment and Management Program, Report of Audit and HN multimedia inspections (Wasser, Abwasser und Lagerung wassergefährdender Stoffe/water, wastewater and storage of water endangering substances) commission, which identifies deficiencies. CEV is the active link between the base and local authorities.

4. Prevention Practices.

4.1. Water Protection Zones:

4.1.1. Classification of water protection zones (I-III) and required measures and procedures for activities in the zones are described in FGS-G Chapter 3, *Drinking Water* (C3.3.1-C3.3.1.3.1). The drinking water production sites for SAB are in Zones I & II. Vast areas of Eifel West are in Zone III. All activities within a certain zone must be in compliance with the above stated FGS-G restrictions.

4.2. Proper Procedures for Building Containment Structures or Equipment:

4.2.1. All storage areas for HAZMAT and hazardous waste (HW) shall be constructed or equipped with proper secondary containment and spill prevention controls.

4.3. Description of Stored Chemicals:

4.3.1. SAB is an operational air base, and as such, handles and uses thousands of different toxic materials. Each chemical is required to be stored, handled and used in accordance with all appropriate laws, regulations and instructions.

4.4. Storm Water Best Management Practices (BMP), FGS-G: Table C4.T3:

4.4.1. A list of typical storm water BMPs (see **Attachment 1**) are the responsibility of each member on SAB.

4.5. Accidental Spills:

4.5.1. Includes proper management of HAZMAT and HW storage areas, which are inspected and maintained in accordance with all appropriate laws, regulations, and instructions. Materials are required to be handled, used, loaded, unloaded and transported in accordance with all appropriate

laws, regulations and instructions. All workers shall be trained in accordance with all appropriate laws, regulations and instructions.

4.6. Aircraft and Vehicle Washing:

4.6.1. Aircraft and vehicle washing is authorized only at designated areas (wash racks). This pertains to government owned vehicles as well as privately owned vehicles. Failure to use designated areas could result in damage to the environment and wildlife. The usage of phosphate free and environmental friendly non-emulsifying soaps ensures functionality and effectiveness of OWSs and reduces the potential impact to the WWTP.

5. Control Measures.

5.1. Toxic Organic Pollutants and Solvents:

5.1.1. Operations where there is a potential for release of organic pollutants or solvents, such as refueling maintenance and washing of aircraft or vehicles, are performed in areas designed to reduce the risk of a slug release.

5.2. Oil/Water Separators:

5.2.1. Facilities are equipped with an OWS where there is a potential for operational, incidental or accidental release of petroleum, oil or lubricants. Permits must be issued for OWS effluent, which discharges directly to open water. All requirements and regulations in accordance with (IAW) AFI 32-7041 and FGS-G must be implemented. Reduce or eliminate the usage of solvents, detergents and emulsifying soaps as well as unauthorized batch releases to ensure functionality and effectiveness of OWSs.

5.3. Retention Ponds and Catch Basins:

5.3.1. Storm water from drainage areas with large sealed surface is discharged via open ditches and conduits to retention ponds. Retention ponds reduce the potential of flooding and erosion. Permits regulate run-off from retention ponds to open waters. The run-off of storm water from areas with a high potential for contamination is diverted to catch basins for retention to prevent high volume releases to the treatment facility.

5.4. Erosion and Other Particulate Run-off:

5.4.1. Erosion is a relatively minor problem at the regulated drainage areas on SAB. Quarterly visual inspections will identify requirements to ensure adequate erosion.

5.5. Deicing Chemical Usage:

5.5.1. SAB shall effectively manage aircraft deicing fluid and other deicing compounds to prevent potential impacts on natural surface water and the WWTP. They shall meet or exceed regulatory requirements through the use of operational BMPs, training and awareness programs, facilities management, monitoring or other innovative operational practices. Deicing chemical contaminated storm water is diverted to retention basins, which discharge to a holding tank and gradually fed to the WWTP. Water quality, pollution prevention and proper deicing chemical management are responsibilities shared by all organizations and employees. Shops that apply deicing chemicals are requested to create a daily consumption log and submit to CEV on a monthly basis during the winter season between 01 Nov and 01 Apr. Additional efforts to upgrade the diversion of contaminated storm water will ensure compliance with this plan and other regulatory restrictions.

6. Procedures To Limit Damages.

6.1. Notification of Releases:

6.1.1. Immediately notify the Fire Department and WWTP of slug discharges, HAZMAT spills and discharges that would violate prohibitions under this instruction. Notification procedures are covered in *52 FW Full Spectrum Threat Response Plan* (FSTR) 10-2, or equivalent.

6.2. Equipment for Emergency Response:

6.2.1. Procedures and equipment for emergency response are provided under the 52 FW FSTR Plan 10-2.

STEPHEN P. MUELLER, Brigadier General (S), USAF
Commander

Attachment 1

STORM WATER BEST MANAGEMENT PRACTICES (BMPS)

Table C4.T3 Storm water Best Management Practices (BMPs)

Activity	Best Management Practices
Aircraft Ground Support *Equipment* Maintenance	• Perform maintenance/repair activities inside • Use drip pans to capture drained fluids • Cap hoses to prevent drips and spills
Aircraft/runway deicing	• Perform anti-icing before the storm • Put critical aircraft in hangars/shelters
Aircraft/vehicle fueling operations	• Protect fueling areas from the rain • Provide spill response equipment at fueling station
Aircraft/vehicle maintenance & repair	• Perform maintenance/repair activities inside • Use drip pans to capture drained fluids
Aircraft/vehicle washing	• Capture wash water and send to wastewater treatment facility • Treat wash water with oil water separator before discharge
Bulk fuel storage areas	• Use dry camlock connectors to reduce fuel loss • Capture spills with drip pans when breaking connections • Curb fuel transfer areas, treat with oil water separator
Construction activities	• Construct sediment dams/silt fences around construction sites
Corrosion control activities	• Capture solvent/soaps used to prepare aircraft for painting • Perform corrosion control activities inside
Hazardous material storage	• Store hazardous materials inside or under cover • Reduce use of hazardous materials
Outdoor material storage areas	• Cover and curb salt, coal, urea piles • Store product drums inside or under cover • Reduce quantity of material stored outside
Outdoor painting/depainting operations	• Capture sandblasting media for proper disposal • Capture paint clean up materials (thinners, rinsates)
Pesticide operations	• Capture rinse water when mixing chemicals • Store spray equipment inside
Power production	• Capture leaks and spills from power production equipment using drip pans, etc.
Vehicle storage yards	• Check vehicles in storage for leaks and spills • Use drip pans to capture leaking fluids